

PATENT COOPERATION TREATY

PCT

NOTIFICATION OF THE RECORDING OF A CHANGE

(PCT Rule 92bis.1 and Administrative Instructions, Section 422)

From the INTERNATIONAL BUREAU

To:

SCHÄFERJOHANN, Volker  
Deutsche Thomson-Brandt GmbH  
European Patent Operations  
Karl-Wiechert-Allee 74  
D-30625 Hannover  
ALLEMAGNE

Date of mailing (day/month/year) 02 August 2001 (02.08.01)	<b>IMPORTANT NOTIFICATION</b>
Applicant's or agent's file reference PD990014	
International application No. PCT/EP00/02182	International filing date (day/month/year) 13 March 2000 (13.03.00)

1. The following indications appeared on record concerning:

- the applicant     the inventor     the agent     the common representative

Name and Address DEUTSCHE THOMSON-BRANDT GMBH Hermann-Schwer-Str. 3 D-78048 Villingen-Schwenningen Germany	State of Nationality DE	State of Residence DE
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

2. The International Bureau hereby notifies the applicant that the following change has been recorded concerning:

- the person     the name     the address     the nationality     the residence

Name and Address THOMSON LICENSING S.A. 46, quai A. Le Gallo F-92100 Boulogne-Billancourt France	State of Nationality FR	State of Residence FR
	Telephone No.	
	Facsimile No.	
	Teleprinter No.	

3. Further observations, if necessary:

4. A copy of this notification has been sent to:

- the receiving Office     the designated Offices concerned  
 the International Searching Authority     the elected Offices concerned  
 the International Preliminary Examining Authority     other:

<p>The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland</p> <p>Facsimile No.: (41-22) 740.14.35</p>	<p>Authorized officer  Elisabeth KÖNIG</p> <p>Telephone No.: (41-22) 338.83.38</p>
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## P/ ENT COOPERATION TREAT

From the INTERNATIONAL BUREAU

PCT

## NOTIFICATION OF ELECTION

(PCT Rule 61.2)

To:

Commissioner  
 US Department of Commerce  
 United States Patent and Trademark  
 Office, PCT  
 2011 South Clark Place Room  
 CP2/5C24  
 Arlington, VA 22202  
 ETATS-UNIS D'AMERIQUE  
 in its capacity as elected Office

<b>Date of mailing</b> (day/month/year) 15 November 2000 (15.11.00)	<b>Applicant's or agent's file reference</b> PD990014
<b>International application No.</b> PCT/EP00/02182	<b>Priority date</b> (day/month/year) 25 March 1999 (25.03.99)
<b>International filing date</b> (day/month/year) 13 March 2000 (13.03.00)	
<b>Applicant</b> SCHWEIDLER, Siegfried et al	

1. The designated Office is hereby notified of its election made:

in the demand filed with the International Preliminary Examining Authority on:  
 \_\_\_\_\_  
 30 September 2000 (30.09.00)

in a notice effecting later election filed with the International Bureau on:  
 \_\_\_\_\_

2. The election  was  
 was not

made before the expiration of 19 months from the priority date or, where Rule 32 applies, within the time limit under Rule 32.2(b).

<b>The International Bureau of WIPO</b> 34, chemin des Colombettes 1211 Geneva 20, Switzerland	<b>Authorized officer</b>  Olivia TEFY
Facsimile No.: (41-22) 740.14.35	Telephone No.: (41-22) 338.83.38

REC'D 11 APR 2001  
WIPO PCT

**INTERNATIONAL PRELIMINARY EXAMINATION REPORT**  
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PD990014	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/02182	International filing date (day/month/year) 13/03/2000	Priority date (day/month/year) 25/03/1999
International Patent Classification (IPC) or national classification and IPC G06F13/38		
Applicant DEUTSCHE THOMSON-BRANDT GMBH et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand 30/09/2000	Date of completion of this report 05.04.2001
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer Rudolph, S Telephone No. +49 89 2399 7526 

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/02182

the drawings, sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims 1-9
	No: Claims
Inventive step (IS)	Yes: Claims 1-9
	No: Claims
Industrial applicability (IA)	Yes: Claims 1-9
	No: Claims

2. Citations and explanations  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

As clarity objections are raised, the comments under section VIII of this international preliminary examination report had been taken into consideration for the examination with regard to novelty, inventive step and industrial applicability.

1. The international application relates to the management of data received as bus packets via a data bus. A defined number of data blocks forms a data source packet wherein the bus packets have a variable length, i.e. comprise a variable number of data packets.

The technical problem addressed by independent claim 1 of the international application is to determine the data source packet boundaries and to indicate these to a memory management unit while receiving said bus packets comprising a variable amount of data packets.

The solution proposed by present claim 1 of the international application is to carrying out modulo-n counting, while n is the fixed amount of data packets forming a data source packet, and to signal said data source packet boundaries to a memory management device at the beginning of each counting interval.

None of the prior art documents cited in the international search report disclose the feature of modulo-n counting while receiving data via a data bus. Thus, claim 1 of the international application meets the requirements of Article 33(2) PCT concerning novelty.

The solution of claim 1 of the international application appears to be obvious to the person skilled in the art to solve the given problem. Employing modulo-n counters in serial bus interfaces in order to count bits, bytes or data packets, respectively, can be considered as common knowledge. However, none of the prior art documents cited in the international search report discuss the afore-mentioned technical problem, i.e. determining data source packet boundaries while receiving data packets

of variable length and, consequently, none of these documents describe modulo-n counting of data packets while receiving data in order to solve said technical problem.

An inventive step in the sense of Article 33(3) PCT in combination with PCT Preliminary International Examination Guidelines C-IV-8.4 and 8.4(i) should therefore be recognized.

2. Claims 2 - 4 depend on independent claim 1 which was found novel and inventive. Consequently, also claims 2 - 4 meet the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
3. Apparatus claim 5 directly corresponds to method claims 1 - 4 as it discloses an apparatus for carrying out the method of one of said preceding claims. As said preceding claims was found novel and inventive also claims 5 meets the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
4. Claims 6 - 9 depend on apparatus claim 5 which was found novel and inventive. Consequently, also claims 6 - 9 meet the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
5. Claims 1 - 9 meet the requirements of Article 33(4) PCT concerning industrial applicability.

**Re Item VIII**

**Certain observations on the international application**

Apparatus claims 8 and 9 depend on one of the preceding claims including method claims 1 - 4. As the wording of said claims leave doubt as to its category the requirements of Article 6 PCT are not complied with (see also PCT Preliminary International Examination Guidelines C-III-4.1). For the examination with regard to novelty, inventive step and industrial applicability under section V of this examination report it is assumed that said claim 8 depends on one of the apparatus claims 5 - 7 and claim 9 depends on one of the apparatus claims 5 - 8.

PATENT COOPERATION TREATY

EXRESS MAIL 685391650US

From the  
INTERNATIONAL PRELIMINARY EXAMINING AUTHORITY

PCT

NOTIFICATION OF TRANSMITTAL OF  
THE INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT  
(PCT Rule 71.1)

To:

SCHAFERSJOHANN, V.  
DEUTSCHE THOMSON-BRANDT GMBH  
European Patent Operations  
Karl-Wiechert-Allee 74  
D-30625 Hannover  
ALLEMAGNE

THOMSON multimedia  
RECEIVED  
09. April 2001  
Patent Department  
Administration-Hannover

9  
10.4.

Date of mailing  
(day/month/year) 05.04.2001


Applicant's or agent's file reference  
PD990014 ✓

**IMPORTANT NOTIFICATION**


International application No. PCT/EP00/02182	International filing date (day/month/year) 13/03/2000	Priority date (day/month/year) 25/03/1999
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Applicant  
DEUTSCHE THOMSON-BRANDT GMBH et al.

- The applicant is hereby notified that this International Preliminary Examining Authority transmits herewith the international preliminary examination report and its annexes, if any, established on the international application.
- A copy of the report and its annexes, if any, is being transmitted to the International Bureau for communication to all the elected Offices.
- Where required by any of the elected Offices, the International Bureau will prepare an English translation of the report (but not of any annexes) and will transmit such translation to those Offices.
- REMINDER**  
The applicant must enter the national phase before each elected Office by performing certain acts (filing translations and paying national fees) within 30 months from the priority date (or later in some Offices) (Article 39(1)) (see also the reminder sent by the International Bureau with Form PCT/IB/301).  
  
Where a translation of the international application must be furnished to an elected Office, that translation must contain a translation of any annexes to the international preliminary examination report. It is the applicant's responsibility to prepare and furnish such translation directly to each elected Office concerned.  
  
For further details on the applicable time limits and requirements of the elected Offices, see Volume II of the PCT Applicant's Guide.

Name and mailing address of the IPEA/  
 European Patent Office  
D-80298 Munich  
Tel. +49 89 2399 - 0 Tx: 523656 epmu d  
Fax: +49 89 2399 - 4465

Authorized officer  
Koski, P  
Tel. +49 89 2399-2709



PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference PD990014	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP00/02182	International filing date (day/month/year) 13/03/2000	Priority date (day/month/year) 25/03/1999
International Patent Classification (IPC) or national classification and IPC G06F13/38		
Applicant DEUTSCHE THOMSON-BRANDT GMBH et al.		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.



2. This REPORT consists of a total of 5 sheets, including this cover sheet.

This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I  Basis of the report
- II  Priority
- III  Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV  Lack of unity of invention
- V  Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI  Certain documents cited
- VII  Certain defects in the international application
- VIII  Certain observations on the international application

Date of submission of the demand  30/09/2000	Date of completion of this report  05.04.2001
Name and mailing address of the international preliminary examining authority:   European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized officer  Rudolph, S  Telephone No. +49 89 2399 7526  



**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/02182

**I. Basis of the report**

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

**Description, pages:**

1-11 as originally filed

**Claims, No.:**

1-9 as originally filed

**Drawings, sheets:**

1/1 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
- the language of publication of the international application (under Rule 48.3(b)).
- the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- contained in the international application in written form.
- filed together with the international application in computer readable form.
- furnished subsequently to this Authority in written form.
- furnished subsequently to this Authority in computer readable form.
- The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- the description, pages:
- the claims, Nos.:

**INTERNATIONAL PRELIMINARY  
EXAMINATION REPORT**

International application No. PCT/EP00/02182

the drawings, sheets:

5.  This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

*(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)*

6. Additional observations, if necessary:

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims 1-9
	No: Claims
Inventive step (IS)	Yes: Claims 1-9
	No: Claims
Industrial applicability (IA)	Yes: Claims 1-9
	No: Claims

2. Citations and explanations  
**see separate sheet**

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:  
**see separate sheet**

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

As clarity objections are raised, the comments under section VIII of this international preliminary examination report had been taken into consideration for the examination with regard to novelty, inventive step and industrial applicability.

1. The international application relates to the management of data received as bus packets via a data bus. A defined number of data blocks forms a data source packet wherein the bus packets have a variable length, i.e. comprise a variable number of data packets.

The technical problem addressed by independent claim 1 of the international application is to determine the data source packet boundaries and to indicate these to a memory management unit while receiving said bus packets comprising a variable amount of data packets.

The solution proposed by present claim 1 of the international application is to carrying out modulo-n counting, while n is the fixed amount of data packets forming a data source packet, and to signal said data source packet boundaries to a memory management device at the beginning of each counting interval.

None of the prior art documents cited in the international search report disclose the feature of modulo-n counting while receiving data via a data bus. Thus, claim 1 of the international application meets the requirements of Article 33(2) PCT concerning novelty.

The solution of claim 1 of the international application appears to be obvious to the person skilled in the art to solve the given problem. Employing modulo-n counters in serial bus interfaces in order to count bits, bytes or data packets, respectively, can be considered as common knowledge. However, none of the prior art documents cited in the international search report discuss the afore-mentioned technical problem, i.e. determining data source packet boundaries while receiving data packets

of variable length and, consequently, none of these documents describe modulo-n counting of data packets while receiving data in order to solve said technical problem.

An inventive step in the sense of Article 33(3) PCT in combination with PCT Preliminary International Examination Guidelines C-IV-8.4 and 8.4(i) should therefore be recognized.

2. Claims 2 - 4 depend on independent claim 1 which was found novel and inventive. Consequently, also claims 2 - 4 meet the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
3. Apparatus claim 5 directly corresponds to method claims 1 - 4 as it discloses an apparatus for carrying out the method of one of said preceding claims. As said preceding claims was found novel and inventive also claims 5 meets the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
4. Claims 6 - 9 depend on apparatus claim 5 which was found novel and inventive. Consequently, also claims 6 - 9 meet the requirements of Articles 33(2) and (3) PCT concerning novelty and an inventive step.
5. Claims 1 - 9 meet the requirements of Article 33(4) PCT concerning industrial applicability.

**Re Item VIII**

**Certain observations on the international application**

Apparatus claims 8 and 9 depend on one of the preceding claims including method claims 1 - 4. As the wording of said claims leave doubt as to its category the requirements of Article 6 PCT are not complied with (see also PCT Preliminary International Examination Guidelines C-III-4.1). For the examination with regard to novelty, inventive step and industrial applicability under section V of this examination report it is assumed that said claim 8 depends on one of the apparatus claims 5 - 7 and claim 9 depends on one of the apparatus claims 5 - 8.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>PD990014</b>	<b>FOR FURTHER ACTION</b> see Notification of Transmittal of International Search Report (Form PCT/ISA/220) as well as, where applicable, item 5 below.	
International application No. <b>PCT/EP 00/ 02182</b>	International filing date (day/month/year) <b>13/03/2000</b>	(Earliest) Priority Date (day/month/year) <b>25/03/1999</b>
Applicant <b>DEUTSCHE THOMSON-BRANDT GMBH</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 3 sheets.

It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report

a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing :

contained in the international application in written form.

filed together with the international application in computer readable form.

furnished subsequently to this Authority in written form.

furnished subsequently to this Authority in computer readable form.

the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.

the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished

2.  Certain claims were found unsearchable (See Box I).

3.  Unity of invention is lacking (see Box II).

4. With regard to the title,

the text is approved as submitted by the applicant.

the text has been established by this Authority to read as follows:

5. With regard to the abstract,

the text is approved as submitted by the applicant.

the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. The figure of the drawings to be published with the abstract is Figure No.

as suggested by the applicant.

because the applicant failed to suggest a figure.

because this figure better characterizes the invention.

1  
 None of the figures.

**INTERNATIONAL SEARCH REPORT**

International Application No

PCT/EP 00/02182

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 G06F13/38

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, INSPEC

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 47271 A (SONY ELECTRONICS INC) 22 October 1998 (1998-10-22)	1-3, 5-8
A	page 3, line 20 -page 4, line 3 page 4, line 15 -page 5, line 26 abstract; claims 1-3; figure 1 page 8, line 23 -page 11, line 15	4, 9
A	FR 2 766 938 A (SONY CORP) 5 February 1999 (1999-02-05) page 1, line 1 -page 4, line 29 page 6, line 16 -page 8, line 16 page 18, line 6 -page 20, line 9 abstract; claims 1-5; figure 1	1-9
	-/--	

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

\* Special categories of cited documents :

- "A" document defining the general state of the art which is not considered to be of particular relevance
- "E" earlier document but published on or after the international filing date
- "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- "O" document referring to an oral disclosure, use, exhibition or other means
- "P" document published prior to the international filing date but later than the priority date claimed

- "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- "&" document member of the same patent family

Date of the actual completion of the international search

30 August 2000

Date of mailing of the international search report

06/09/2000

Name and mailing address of the ISA  
European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Nguyen Xuan Hiep, C

## INTERNATIONAL SEARCH REPORT

International Application No

EP 00/02182

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5 875 313 A (ODOM BRIAN K ET AL) 23 February 1999 (1999-02-23) column 1, line 11 -column 2, line 15 column 5, line 49 -column 6, line 67 abstract; figure 3 -----	1-9

**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International Application No

EP 00/02182

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 9847271	A	22-10-1998	AU 2669797 A EP 0976228 A	11-11-1998 02-02-2000
FR 2766938	A	05-02-1999	JP 11017764 A NL 1009451 A	22-01-1999 22-12-1998
US 5875313	A	23-02-1999	NONE	